

Query Match	99.1%;	Score 889;	DB 20;	Length 897;
Best Local Similarity	99.4%;	Pred. No. 9e-261;		
Matches 892;	Conservative	0;	Mismatches 5;	Indels 0;
				Gaps 0;

[illegible]

Df
721 tgcctcgacgacctgtccgtgcgaacaagtgttcgattgcaatccgcccccgtccaagg 780

Oy
781 gaattgaacggcgcgaataagcccatgatgccccgttgttcaaccgcaatgcgaatatgg 840
|||||
Db 781 gatcgaaacggcgcgaataagcccatgatgccccgttgttcaaccgcaatgcgaatatgg 840

Oy 841 ataagcggtttccgacgacgatlactgttatgttaaacacgcgcatacaaatgcccgttaa 897
|||||
Db 841 atacgcggtttccgacgacgacgtactgttatgttaaacacgcgcatacaaatgcccgttaa 897

RESULT 5
ID AA253712 standard; DNA; 897 BP.
AA253712
AC AA253712;
XX
DT 21-MAR-2000 (first entry)
XX
DE Neisseria meningitidis ORF 505 partial DNA sequence SEQ ID NO:1373.
XX
KW Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine;
KM antigenic; diagnosis; immunogenic; infection; meningitis; septicemia;
KV antibacterial; gene therapy; ds.
XX
OS Neisseria meningitidis.
XX
PN W09957280-A2.
XX
PD 11-NOV-1999.
XX
PE 30-APR-1999; 99WC-USO9346.
XX
PR 01-MAY-1998; 98US-0083758.
XX PR 31-JUL-1998; 98US-0094869.
PR 02-SEP-1998; 98US-0098994.
PR 02-SEP-1998; 98US-0099062.
PR 09-OCT-1998; 98US-0103749.
PR 09-OCT-1998; 98US-0103794.
PR 09-OCT-1998; 98US-0103796.
PR 25-FEB-1999; 99US-0121528.

PA (CHIR) CHIRON CORP.
PA (GENO-) INST GENOMIC RES.
XX
PI Fraser C, Galeotti C, Grandi G, Hickey E, Masignani V, Mora M,
PI Petersen J, Piza M, Rappoli R, Ratti G, Scalato E, Scarselli M,
PI Tettelin H, Venter JC;
XX
DR WPI: 2000-062150/05.
DR P-PDB; AAY74950.

PT Novel Neisserial polypeptides predicted to be useful antigens for
PT vaccines and diagnostics -
XX
PS
PS Claim 7; Page 746-747; 1453pp; English.

CC AA253015 to AA254536, AA254577 to AA254615, and AAY74253 to AAY75941
CC represent novel Neisseria meningitidis and N. gonorrhoeae polynucleotides
CC and polypeptides. AA254537 to AA254576 and AA254616 to AA255473 represent
CC PCR primers used in the exemplification of the present invention. The
CC polypeptides, the polynucleotides, antibodies and compositions of
CC the invention can be used as vaccines, as diagnostic reagents, and as
CC immunogenic compositions. The polypeptides can be used in the
CC manufacture of medicaments for treating or preventing infection due to
CC Neisserial bacteria (e.g. meningitis and septicemia), to detect the
CC presence of Neisseria bacteria, or to raise antibodies. They may also
CC have been used to screen for agonists or antagonists, which may themselves
CC have been used as antibacterial agents. The polynucleotides of the invention
CC may also be used in gene therapy protocols.
XX
XQ Sequence 897 BP; 223 A; 266 C; 227 G; 181 T; 0 other;

Query Match 99.1%; Score 889; DB 21; Length 897;
 Best Local Similarity 99.4%; Pred. No. 9e-261;
 Matches 892; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

```

QY 1 atgttgcgttaaatcaatcagctgtttcccttgcgaacccatgcaatcctgttg 60
DB 1 atgttgcgttaaatcaatcagctgtttcccttgcgaacccatgcaatcctgttg 60
QY 61 accgacctgccaatgacctcctcctgctgacgcttctcgttgcacacgtggaac 120
DB 61 accgacctgccaatgacctcctcctcctgctgacgcttctcgttgcacacgtggaac 120
QY 121 cgcgtcgacatcgcgttcttaccctttaaagaagaccgacgacgacatgcgcaat 180
DB 121 cgcgtcgacatcgcgttcttaccctttaaagaagaccgacgacgacatgcgcaat 180
QY 181 atgctgcaagcagatgcatccgaccccaaaaacgctcaaaacgcttctggaacg 240
DB 181 atgctgcaagcagatgcatccgaccccaaaaacgctcaaaacgcttctggaacg 240
QY 241 gcaaaagcggttgcgaacttgcgcccgcgttttcagaacacggaagacatagaaca 300
DB 241 gcaaaagcggttgcgaacttgcgcccgcgttttcagaacacggaagacatagaaca 300
QY 301 atgttcaaaagcggttgcgaacttgcgcccgcgttttcagaacacggaagacatagaaca 360
DB 301 atgttcaaaagcggttgcgaacttgcgcccgcgttttcagaacacggaagacatagaaca 360
QY 361 ctgtatcatcaccgacacatcgagctacatcttggcggaacgctacatcagcag 420
DB 361 ctgtatcatcaccgacacatcgagctacatcttggcggaacgctacatcagcag 420
QY 421 cagcttccgttcccgctgacgccaatgtacaacccgcgaacatcaaaacgcatagacaa 480
DB 421 cagcttccgttcccgctgacgccaatgtacaacccgcgaacatcaaaacgcatagacaa 480
QY 481 atcctgacgagcgaggttcgcggaagaaacccgcgctaccacacatacaagg 540
DB 481 atcctgacgagcgaggttcgcggaagaaacccgcgctaccacacatacaagg 540
QY 541 gtcaacaacatcatcaaaagccctgcttgcggaagcaaacatgctcctgcgacac 600
DB 541 gtcaacaacatcatcaaaagccctgcttgcggaagcaaacatgctcctgcgacac 600
QY 601 gtccctccctcaagaagcgaggaagcgatggtgtgattcttcgcgcaaacctgac 660
DB 601 gtccctccctcaagaagcgaggaagcgatggtgtgattcttcgcgcaaacctgac 660
QY 661 tatacctgacgctgagcgcaaaatgtgcacacgltcaaaagcggtgaacccgttttc 720
DB 661 tatacctgacgctgagcgcaaaatgtgcacacgltcaaaagcggtgaacccgttttc 720
QY 721 tgcgtgcaagcctgctgcggaagaggttgcattgacatccgcccgttcaagg 780
DB 721 tgcgtgcaagcctgctgcggaagaggttgcattgacatccgcccgttcaagg 780
QY 781 gaattgaacggcgacaagccatgattgcgcgctgttcaacgcaatgccaatttgg 840
DB 781 gaattgaacggcgacaagccatgattgcgcgctgttcaacgcaatgccaatttgg 840
QY 841 atagcgcttttcgcgacgagatctgttattgtacaaacgctacaacatgcgtaa 897
DB 841 atagcgcttttcgcgacgagatctgttattgtacaaacgctacaacatgcgtaa 897

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RESULT 6
 AAA81476/c
 ID AAA81476 standard; DNA; 56485 BP.
 XX
 AC
 XX AAA81476;
 XX

DT 04-DEC-2000 (first entry)
 XX
 DE N. meningitidis partial DNA sequence gum_24 SEQ ID NO:24.
 XX
 KW Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;
 XX antigen; vaccine; diagnosis; infection; antibacterial; identification;
 KW Meningococcus B; MenB; ds.
 XX
 OS Neisseria meningitidis.
 XX
 PN WO200022430-A2.
 XX
 PD 20-APR-2000.
 XX
 PF 08-OCT-1999; 99WO-US23573.
 XX
 PR 09-OCT-1998; 98US-0103794.
 XX 30-APR-1999; 99US-0132068.
 XX
 PA (CHIR) CHIRON CORP.
 XX
 PI Frazer CM, Hickey E, Peterson J, Tettelin H, Venter JC;
 PI Masignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V;
 PI Rappuoli R, Pizza M.
 XX
 DR WPI, 2000-318079/27.
 XX
 PS
 XX
 PT Isolated nucleotide sequences of Neisseria meningitidis which can be
 PT used in the diagnosis and treatment of N. meningitidis infection and
 PT other Neisserial infections, for example, N.gonorrhoea -
 XX
 PS
 XX
 PS Claim 7; Page 507-524; 1760pp; English.
 XX
 CC The present invention describes methods of obtaining immunogenic
 CC proteins from Neisseria genomic sequences. AAA81453 to AAA82414
 CC represent specifically claimed Neisseria meningitidis genomic DNA
 CC sequences; AAA81260 to AAA81303 and AAB25620 to AAB25663 represent
 CC Neisseria DNA sequences and their corresponding proteins; AAA81254 to
 CC AAA81259 and AAA81304 to AAA81321 represent PCR primers used in the
 CC isolation of Neisseria meningitidis DNA sequences; and AAA81322 to
 CC AAA81452 represent Neisseria meningitidis MenB polynucleotide ORF
 CC sequences, which are all used in the exemplification of the present
 CC invention. The nucleic acid sequences, protein sequences, and antibodies
 CC against them, can be used in the manufacture of a composition. The
 CC composition can be used as a medicament (or in the manufacture of a
 CC medicament) for treating, preventing or diagnosing infection due to
 CC Neisserial bacteria. For example, some of the identified proteins could
 CC be components of vaccines against Meningococcus B; against all serotypes;
 CC and/or against all pathogenic Neisseriae. Identification of sequences
 CC from the bacterium will also facilitate production of biological probes,
 CC particularly organism-specific probes. Attempts to make efficacious
 CC Meningococcus B vaccines have failed mainly due to antigen tolerance.
 CC Multivalent vaccines have also been tried but none have successfully
 CC overcome antigenic variability. The provision of further, complete
 CC sequences may provide an opportunity to identify secreted or surface
 CC and exposed proteins that may be presumed targets for the immune system and
 CC which are not antigenically variable or at least more conserved than
 CC other more variable regions.
 CC
 XX
 SQ Sequence 56485 BP; 12504 A; 14247 C; 16158 G; 13573 T; 3 other;

Query Match 99.1%; Score 889; DB 21; Length 56485;
 Best Local Similarity 99.4%; Pred. No. 5.9e-260;
 Matches 892; Conservative 0; Mismatches 5; Indels 0; Gaps 0;

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QY 1 atgttgcgttaaatcaatcagctgtttcccttgcgaacccatgcaatcctgttg 60
DB 52654 ATGTTTGGTTTAAATTCAGGCTGTTCCCTTTCGAAACGCCATGCACATCCGTTGG 52595
QY 61 accgacctgccaatgacctcctcctgctgacgcttctcgttgcacacgtggaac 120
DB 52594 ACCGCCCTGCTCAAAAGCCCTCCCTGCGCTGCTTCTGTCACACGCTGGGAAC 52535

```


QY 541 gtcaacaatacaaaagccctgctgctgagcgaagcaacatcgtctcgtccgacac 600
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC and polypeptides. AA54537 to AA54576 and AA54616 to AA5473 represent
 CC PCR primers used in the exemplification of the present invention. The
 CC polypeptides, the polynucleotides, antibodies and compositions of
 CC the invention can be used as vaccines, as diagnostic reagents, and as
 CC immunogenic compositions. The polypeptides can be used in the
 CC manufacture of medicaments for treating or preventing infection due to
 CC Neisseria bacteria (e.g. meningitis and septicemia), to detect the
 CC presence of Neisseria bacteria, or to raise antibodies. They may also
 CC be used to screen for agonists or antagonists, which may themselves
 CC have use as antibacterial agents. The polynucleotides of the invention
 CC may also be used in gene therapy protocols.

Db 454311 gtcaacaatacaaaagccctgctgagcgaagcaacatcgtctcgtccgacac 454370
 QY 601 gtccctccctcccaagaagcgagggaagcgatggtggtggtctctcgcaacctgccc 660
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC 454371 gtccctccctcccaagaagcgagggaagcgatggtggtggtctctcgcaacctgccc 454430
 QY 661 tataccatgacgtctgcggaacaaattggaacacgtcgaagcggaagccctgttttc 720
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC 454431 tataccatgacgtctgcggaacaaattggaacacgtcgaagcggaagccctgttttc 454490
 QY 721 tctctggaacgcctgctcgagcggaacaggttcgaattgcaatccgcccgtccaagg 780
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 454491 tctctggaacgcctgctcgagcggaacaggttcgaattgcaatccgcccgtccaagg 454550
 QY 781 gaattgaacgcgcgaacaaagccatgatccgcgctgttcaacccgaatgcgaatttg 840
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 454551 gaattgaacgcgcgaacaaagccatgatccgcgctgttcaacccgaatgcgaatttg 454610
 QY 841 ataagcgcgttttcgagcagatctgttatagtacaacccgtacaacaaatgcgttaa 897
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 454611 ataagcgcgttttcgagcagatctgttatagtacaacccgtacaacaaatgcgttaa 454667

RESULT 9

AA53710
 ID AA53710 standard; DNA; 866 BP.

XX AA53710;

DT 21-MAR-2000 (first entry)

XX Neisseria meningitidis ORF 505 partial DNA sequence SEQ ID NO:1369.

XX Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine;

XX antigenic; diagnosis; immunogenic; infection; meningitis; septicemia;

XX antibacterial; gene therapy; ds.

XX Neisseria meningitidis.

XX W09957280-A2.

XX 11-NOV-1999.

XX 30-APR-1999; 99MO-US09346.

XX 01-MAY-1998; 98US-0083758.

XX 31-JUL-1998; 98US-0094869.

XX 02-SEP-1998; 98US-0098994.

XX 09-OCT-1998; 98US-0103749.

XX 09-OCT-1998; 98US-0103794.

XX 25-FEB-1999; 99US-0121528.

XX (CHIR) CHIRON CORP.

XX (GENO-) INST GENOMIC RES.

XX Fraser C, Galeotti C, Grandi G, Hickey E, Masignani V, Mora M;

XX Petersen J, Pizzo M, Rappelli R, Ratti G, Scalato E, Scarselli M;

XX Tettelin H, Venter JC;

XX WPI; 2000-062150/05.

XX P-PSDB; AAY74948.

XX Novel Neisserial polypeptides predicted to be useful antigens for

XX vaccines and diagnostics

XX Claim 7; Page 744-745; 1453pp; English.

XX AA53015 to AA54536, AA54577 to AA54615, and AAY74253 to AAY75941

CC represent novel Neisseria meningitidis and N. gonorrhoeae polynucleotides
 CC and polypeptides. AA54537 to AA54576 and AA54616 to AA5473 represent
 CC PCR primers used in the exemplification of the present invention. The
 CC polypeptides, the polynucleotides, antibodies and compositions of
 CC the invention can be used as vaccines, as diagnostic reagents, and as
 CC immunogenic compositions. The polypeptides can be used in the
 CC manufacture of medicaments for treating or preventing infection due to
 CC Neisseria bacteria (e.g. meningitis and septicemia), to detect the
 CC presence of Neisseria bacteria, or to raise antibodies. They may also
 CC be used to screen for agonists or antagonists, which may themselves
 CC have use as antibacterial agents. The polynucleotides of the invention
 CC may also be used in gene therapy protocols.

Sequence 866 BP; 210 A; 260 C; 223 G; 172 T; 1 other;

Query Match 93.6%; Score 839.6; DB 21; Length 866;
 Best Local Similarity 99.2%; Pred. No. 1e-245; 5; Indels 1; Gaps 1;
 Matches 853; Conservative 1; Mismatches 5; Indels 1; Gaps 1;

QY 1 atgttcgtttaacaattcaagcgtgttccctcttggaacccgcatgcacatcgtgtg 60
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 4 atgttcgtttaacaattcaagcgtgttccctcttggaacccgcatgcacatcgtgtg 63
 QY 61 accgcctgctcaaatgctctcctctgctgctgcttccctctgctgctgctgctgctg 120
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 64 accgcctgctcaaatgctctcctctgctgctgcttccctctgctgctgctgctgctg 123
 QY 121 cggctcgacacatctgctgcttcttcaatggaagacgcgcgcgcgcgcgcgcgcgcgc 180
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 124 cggctcgacacatctgctgcttcttcaatggaagacgcgcgcgcgcgcgcgcgcgcgc 183
 QY 181 atgcgtcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagc 240
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 184 atgcgtcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagcagc 243
 QY 241 gcaaaagcgctgttggaactgtcccccgcgttttcaagaacccggaacataagaataa 300
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 244 gcaaaagcgctgttggaactgtcccccgcgttttcaagaacccggaacataagaataa 303
 QY 301 atgttcaagcgcgttaacagcgttggaacatgctgcaagcgttttggaacacagag 360
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 304 atgttcaagcgcgttaacagcgttggaacatgctgcaagcgttttggaacacagag 363
 QY 361 ctgctatctacacgc 420
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 364 ctgctatctacacgc 423
 QY 421 cagcttcgcttccgcgtgacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 480
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 424 cagcttcgcttccgcgtgacgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgcgc 483
 QY 481 atcatgagc 540
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 484 atcatgagc 543
 QY 541 gtcaacaatacaaaagccctgctgctgagcgaagcaacatcgtctcgtccgacac 600
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 544 gtcaacaatacaaaagccctgctgctgagcgaagcaacatcgtctcgtccgacac 602
 QY 601 gtccctccctcccaagaagcgagggaagcgatggtggtggtctctcgcaacctgccc 660
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 603 gtccctccctcccaagaagcgagggaagcgatggtggtggtctctcgcaacctgccc 662
 QY 661 tataccatgacgtctgcggaacaaattggaacacgtcgaagcggaagccctgttttc 720
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 663 tataccatgacgtctgcggaacaaattggaacacgtcgaagcggaagccctgttttc 722
 QY 721 tctctggaacgcctgctcgagcggaacaggttcgaattgcaatccgcccgtccaagg 780
 CC |||||||||||||||||||||||||||||||||||||||||||||||||||||||
 CC Db 723 tctctggaacgcctgctcgagcggaacaggttcgaattgcaatccgcccgtccaagg 782
 QY 781 gaattgaacgcgcgaacaaagccatgatccgcgctgttcaacccgaatgcgaatttg 840

|||||
Db 763 gaattgaacgagcagaagcccaatgacggtggttcaaccgcaatgcccgaatattgg 842
Qy 841 ataccgcttttcgagca 860
|||||
Db 843 ataccgcttttcgagca 862

RESULT 10

AAZ1219 standard: DNA; 894 BP.

AAZ12219;
AAZ12219;

08-OCT-1999 (first entry)

Neisseria gonorrhoeae complete ORF138 sequence.

Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine;
treatment; Neisseria infection; meningitis; septicemia; gonorrhea; ss.

Neisseria gonorrhoeae.

WO9924578-A2.

20-MAY-1999.

09-OCT-1998: 98WO-1B01665.

01-SEP-1998: 98GB-0019016.

06-NOV-1997: 97GB-0023516.

14-NOV-1997: 97GB-0024190.

18-NOV-1997: 97GB-0024386.

27-NOV-1997: 97GB-0025158.

10-DEC-1997: 97GB-0026147.

14-JAN-1998: 98GB-0000759.

(CHIR-) CHIRON SPA.

Grandi G, Maignani V, Piza M, Rappunli R, Scariato V;

WPI: 1999-337407/27.

P-PSDB; AAY8784.

Proteins from Neisseria meningitidis and N. gonorrhoeae useful for

diagnosis, treatment and prevention of infection

Claim 9; Page 327-328; 524pp; English.

Nucleotide sequences AAZ11972-212358 represent open reading frames

(ORFs) of Neisseria meningitidis and N. gonorrhoeae which encode

antigenic proteins (see AAY38499-Y38944). The antigenic proteins, their

fragments, their nucleic acids and antibodies are used for diagnosis,

prevention (as vaccines) or treatment of Neisseria infections;

as such as meningitis, septicemia and gonorrhea. Both organisms

are closely related. Fragments of the nucleic acids are useful

as hybridisation probes and antisense reagents.

Sequence 894 BP; 216 A; 270 C; 233 G; 175 T; 0 other;

Query Match 89.1%; Score 799.4; DB 20; Length 894;

Best Local Similarity 94.0%; Pred. No. 1.9e-233; Indels 3; Gaps 1;

Matches 843; Conservative 0; Mismatches 51;

1 atgttcttaccatgaagctgttcccttgcgaacgcacatgcatctgtg 60

1 atgttcttaccatgaagctgttcccttgcgaacgcacatgcatctgtg 60

61 accgcttgcacatgctctccctgctgcgcgttctcttgcgaacgctggaac 120

61 accgcttgcacatgctctccctgctgcgcgttctcttgcgaacgctggaac 120

Qy 121 cggctcgacatctgacgttttaccctttaaaggaaagcgcgcgcacat 180
Db 121 cggctcgacatctgacgttttaccctttaaaggaaagcgcgcgcacat 180
Qy 181 atgctgaagcagcatgataccgaccccaaaacggttcaagcgcttttcggaacg 240
Db 181 atgctgaagcagcggtttgaaccccgacgacggttcaagcgcttttcggaacg 240
Qy 241 gcaaaagcggtttgaacttgcgcgcgcgttttcaaaagcgggaagaca 300
Db 241 gcaaaagcggtttgaacttgcgcgcgcgttttcaaaagcgggaagaca 300
Qy 301 atgttcaagcgttacacgctggaacatgtgcaagcgttttgcgaacacgaag 360
Db 301 atgttcaagcgttacacgctggaacatgtgcaagcgttttgcgaacacgaag 360
Qy 361 ctgctattcatcagcgcacatcgacgtacgtatttgcgagcgttaccatcagcag 420
Db 361 ctgctattcatcagcgcacatcgacgtacgtatttgcgagcgttaccatcagcag 420
Qy 421 cagcttcgttcccgctgacgcgcacgttacaaacgcgcgaatacgaagcgaac 480
Db 421 cagcttcgttcccgctgacgcgcacgttacaaacgcgcgaatacgaagcgaac 480
Qy 481 atcatgcaagcggcgaggttgcgcaaggaagaaacgcgcctaccagcatcaag 540
Db 481 atcatgcaagcggcgaggttgcgcaaggaagaaacgcgcctaccagcatcaag 540
Qy 541 gtaaaacaaatcaacaaacgcgcctgctggtgcgaagcaacacatcctgcgcgaac 600
Db 541 gtaaaacaaatcaacaaacgcgcctgctggtgcgaagcaacacatcctgcgcgaac 600
Qy 601 gtccttccttcgaagaaagcggaagcgtatggttgcgttcttcggaacacgtcc 660
Db 601 gtccttccttcgaagaaagcggaagcgtatggttgcgttcttcggaacacgtcc 660
Qy 661 tatacctgacgttgcggaacaaattgacacacgttcaagcggtgaacacgttttc 720
Db 661 tatacctgacgttgcggaacaaattgacacacgttcaagcggtgaacacgttttc 720
Qy 721 tgcctgcaagcgttgcggaacaaattgacacacgttcaagcggtgaacacgttttc 780
Db 721 tgcctgcaagcgttgcggaacaaattgacacacgttcaagcggtgaacacgttttc 780
Qy 781 gaattgaacgagcaaaagcccatgacgcgcgttgcgaacgcgaatgcatattgg 840
Db 781 gaattgaacgagcaaaagcccatgacgcgcgttgcgaacgcgaatgcatattgg 840
Qy 841 ataccgcttttcgagcagatctgtttatgtacacaccgtataaagcgcgttaa 897
Db 841 ataccgcttttcgagcagatctgtttatgtacacaccgtataaagcgcgttaa 897

RESULT 11

AAZ53709 standard: DNA; 894 BP.

AAZ53709;

21-MAR-2000 (first entry)

Neisseria gonorrhoeae ORF 505 partial DNA sequence SEQ ID NO:1367.

Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine;

antigenic; diagnosis; immunogenic; infection; meningitis; septicemia;

antibacterial; gene therapy; ds.

Neisseria gonorrhoeae.

WO9957280-A2.

11-NOV-1999.

Query Match	Similarity	Score	DB	Length
Best Local Similarity	94.08%	799.4	DB 21	894
Matches	843	Conservative	0	Mismatches 51
				Indels 3
				Gaps 1

Db	361	cggtgttcaatcaacgcccgaacatcgtgcagctcgaatttggtggcgaagcgtacatcattccagc	420
Qy	421	caagcttcggtcccgctgcagccgcacatgltacaacccgcggaaatcaagaagcgatagaca	480
Db	421	caagcttcggtcccgctgcagccgcacatgltacaacccgcggaaatcaagaagcgatagaca	480
Qy	481	atcatgcaaggcgagggttgctggcgaagaagaaacccgcgctaccagcatatacaagg	540
Db	481	atcatgcaaggcgagggttgctggcgaagaagaaacccgcgctaccagcatatacaagg	540
Qy	541	gtcaaacaaatcaacaaacccctgcttcggcggaagcaaacatcgtccctgcggcgac	600
Db	541	gtcaaacaaatcaacaaacccctgcttcggcggaagcaaacatcgtccctgcggcgac	600
Qy	601	gtccctccctcccaagaagcggggaagcgatgggtggtattctctgcgaacctgc	660
Db	601	gtccctccctcccaagaagcggggaagcgatgggtggtattctctgcgaacctgc	660
Qy	661	tacacatgacgctgcggcgaatctggcacaagtcgaagcgtgaaacccctgttttc	720
Db	658	tacacatgacgctgcggcgaatctggcacaagtcgaagcgtgaaacccctgttttc	717
Qy	721	tgctgcgaagcgcctgcctgcggcgaaggttcgattgacatccgcgcgcgtcccaagg	780
Db	718	tgctgcgaagcgcctgcctgcggcgaaggttcgattgacatccgcgcgcgtcccaagg	777
Qy	781	gaattgaacggcgacaagaccatgatgcgcgtgttcaaccgcgaatgcgaatatgg	840
Db	778	gaattgaacggcgacaagaccatgatgcgcgtgttcaaccgcgaatgcgaatatgg	837
Qy	841	atacgcgcgtttccgacgcagatctctttatgtacaaacccgcgcgaataatgcgcga	897
Db	838	atacgcgcgtttccgacgcagatctctttatgtacaaacccgcgcgaataatgcgcga	894
RESULT 12			
AA121216			
ID	AA121216 standard; DNA; 369 BP.		
AC	AA121216;		
XX			
DT	08-OCT-1999 (first entry)		
XX			
DE	Neisseria meningitidis partial ORF138 sequence.		
XX			
KW	Neisseria meningitidis; Neisseria gonorrhoeae; antigen; vaccine; treatment; Neisseria infection; meningitis; septicemia; gonorrhea; ss		
XX			
OS	Neisseria meningitidis.		
XX			
PN	W09924578-A2.		
XX			
PD	20-MAY-1999.		
XX			
PF	09-OCT-1998; 98WC-IB01665.		
XX			
PR	01-SEP-1998; 98GB-0019016.		
XX			
PR	06-NOV-1997; 97GB-0023516.		
XX			
PR	14-NOV-1997; 97GB-0024190.		
XX			
PR	18-NOV-1997; 97GB-0024386.		
XX			
PR	27-NOV-1997; 97GB-0025158.		
XX			
PR	10-DEC-1997; 97GB-0026147.		
XX			
PR	14-JAN-1998; 98GB-0000759.		
XX			
PA	(CHIR-) CHIRON SPA.		
PI	Grandi G, Masignani V, Pizza M, Rapuoli R, Scarlato V;		
DR	WPI: 1999-327407/27.		
DR	P-PSDB; AA138781.		
XX			
XX	Proteins from Neisseria meningitidis and N. gonorrhoeae useful for		
XX	diagnosis, treatment and prevention of infection		

XX Claim 9; Page 325; 524pp; English.

PS Nucleotide sequences AA211972-212358 represent open reading frames

CC (ORFs) of *Neisseria meningitidis* and *N. gonorrhoeae* which encode

CC antigenic proteins (see AY38499-138944). The antigenic proteins, their

CC fragments, their nucleic acids and antibodies are used for diagnosis,

CC prevention (as vaccines), or treatment of *Neisseria* infections,

CC such as meningitis, septicemia and gonorrhea. Both organisms

CC are closely related. Fragments of the nucleic acids are useful

CC as hybridisation probes and antisense reagents.

XX

XX Sequence 369 BP; 84 A; 107 C; 93 G; 84 T; 1 other;

SQ

Query Match 40.2%; Score 360.6; DB 20; Length 369;

Best Local Similarity 98.4%; Pred. No. 8.2e-100;

Matches 363; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 1 atgttcgtttacaattcagctgtttcccttttgagacgcgcattgacatctgttg 60

DB 1 atgttcgtttacaattcagctgtttcccttttgagacgcgcattgacatctgttg 60

QY 61 accgacctgtcaaatgacctctccctgctgcgcttctctgtctgacacgcgtggaaac 120

DB 61 accgacctgtcaaatgacctctccctgctgcgcttctctgtctgacacgcgtggaaac 120

QY 121 cggctcgagacatctgctgtttacatttaagaagacgcgcgcgtatcgcccaat 180

DB 121 cggctcgagacatctgctgtttacatttaagaagacgcgcgcgtatcgcccaat 180

QY 121 cggctcgagacatctgctgtttacatttaagaagacgcgcgcgtatcgcccaat 180

DB 121 cggctcgagacatctgctgtttacatttaagaagacgcgcgcgtatcgcccaat 180

QY 181 atgctgaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 240

DB 181 atgctgaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 240

QY 241 gcaaaagcggttggtaacttgcctccgcgtttttcagaanaacggaagacatagaaca 300

DB 241 gcaaaagcggttggtaacttgcctccgcgtttttcagaanaacggaagacatagaaca 300

QY 301 atgttcaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 360

DB 301 atgttcaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 360

QY 361 ctgctattc 369

DB 361 ctgctattc 369

RESULT 13

AAA81391

ID AAA81391 standard; DNA; 369 BP.

XX AAA81391;

AC 04-DEC-2000 (first entry)

XX

DT N. meningitidis Menb polynucleotide sequence ORF number 67.

XX

DE

XX

KW *Neisseria meningitidis*; *Neisseria gonorrhoeae*; genome; immunogenic;

KW antigen; vaccine; diagnosis; infection; antibacterial; identification;

KW *Meningococcus B*; Menb; ds.

XX

XX *Neisseria meningitidis*.

OS

XX

PN WO200022430-A2.

XX

PD 20-APR-2000.

XX

PE 08-OCT-1999; 99WO-US23573.

XX

PR 09-OCT-1998; 98US-0103794.

XX

PR 30-APR-1999; 99US-0132068.

XX

PA (CHIR) CHIRON CORP.

XX

XX Frazier CM, Hickey E, Peterson J, Nettlin H, Venter JC;

PI Maignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V;

PI Rappunli R, Piazza M;

XX

DR WPI; 2000-318079/27.

XX

PT Isolated nucleotide sequences of *Neisseria meningitidis* which can be

PT used in the diagnosis and treatment of *N. meningitidis* infection and

PT other *Neisseria* infections, for example, *N. gonorrhoea*.

XX

XX Disclosure; Page 216; 1760pp; English.

XX

CC The present invention describes methods of obtaining immunogenic

CC proteins from *Neisseria* genomic sequences. AAA81453 to AAA82414

CC represent specifically claimed *Neisseria meningitidis* genomic DNA

CC sequences; AAA81260 to AAA81303 and AAB25620 to AAB25663 represent

CC *Neisseria* DNA sequences and their corresponding proteins; AAA81254 to

CC AAA81259 and AAA81304 to AAA81321 represent PCR primers used in the

CC isolation of *Neisseria meningitidis* DNA sequences; and AAA81322 to

CC AAA81452 represent *Neisseria meningitidis* Menb polynucleotide ORF

CC sequences, which are all used in the exemplification of the present

CC invention. The nucleic acid sequences, protein sequences, and antibodies

CC against them, can be used in the manufacture of a composition. The

CC composition can be used as a medicament (or in the manufacture of a

CC medicament) for treating, preventing or diagnosing infection due to

CC *Neisseria* bacteria. For example, some of the identified proteins could

CC be components of vaccines against *Meningococcus B*; against all serotypes;

CC and/or against all pathogenic *Neisseriae*. Identification of biological probes,

CC from the bacterium will also facilitate production of biological probes,

CC particularly organism specific probes. Attempts to make efficacious

CC *Meningococcus B* vaccines have failed mainly due to antigen tolerance.

CC Multivalent vaccines have also been tried but none have successfully

CC overcome antigenic variability. The provision of further, complete

CC sequences may provide an opportunity to identify secreted or surface

CC exposed proteins that may be presumed targets for the immune system and

CC which are not antigenically variable or at least more conserved than

CC other more variable regions.

XX

SQ

Sequence 369 BP; 84 A; 107 C; 93 G; 84 T; 1 other;

Query Match 40.2%; Score 360.6; DB 21; Length 369;

Best Local Similarity 98.4%; Pred. No. 8.2e-100;

Matches 363; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 1 atgttcgtttacaattcagctgtttcccttttgagacgcgcattgacatctgttg 60

DB 1 atgttcgtttacaattcagctgtttcccttttgagacgcgcattgacatctgttg 60

QY 61 accgacctgtcaaatgacctctccctgctgcgcttctctgtctgacacgcgtggaaac 120

DB 61 accgacctgtcaaatgacctctccctgctgcgcttctctgtctgacacgcgtggaaac 120

QY 121 cggctcgagacatctgctgtttacatttaagaagacgcgcgcgtatcgcccaat 180

DB 121 cggctcgagacatctgctgtttacatttaagaagacgcgcgcgtatcgcccaat 180

QY 181 atgctgaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 240

DB 181 atgctgaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 240

QY 241 gcaaaagcggttggtaacttgcctccgcgtttttcagaanaacggaagacatagaaca 300

DB 241 gcaaaagcggttggtaacttgcctccgcgtttttcagaanaacggaagacatagaaca 300

QY 301 atgttcaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 360

DB 301 atgttcaagcagcgtatgaatcccgagcccaaaacggtcaaacgcttttggcgaaag 360

QY 361 ctgctattc 369

DB 361 ctgctattc 369

CC particularly organism-specific probes. Attempts to make efficacious
 CC Meningococcus B vaccines have failed mainly due to antigen tolerance.
 CC Multivalent vaccines have also been tried but none have successfully
 CC overcome antigenic variability. The provision of further, complete
 CC sequences may provide an opportunity to identify secreted or surface
 CC exposed proteins that may be presumed targets for the immune system and
 CC which are not antigenically variable or at least more conserved than
 CC other more variable regions.

XX Sequence 65632 BP: 16704 A; 16327 C; 15474 G; 17126 T; 1 other;

Query Match

Best Local Similarity 44.1%; Score 36.4; DB 21; Length 65632;
 Matches 148; Conservative 0; Mismatches 186; Indels 0; Gaps 0;

QY 477 caaatatcagcagcgaggggttcgcgcgaagaagaaccgagccaccagatca 536
 DB 18697 CAAACTTTTGACATAGCGCAAGCGGTAAACCTGGGCTTCAACCTGCCAGCAAAACCCA 18638
 QY 537 aggggtcaacaacatcatcaaaagccctgcgttcgagcgaaaccatcgtctccga 596
 DB 18637 AGCGAGCAAAAGACATCATCAAAATCAAAAGCGGTGCTTGACGACAAAGCGCGACCG 18578
 QY 597 ccacgtccctccctccctcaagaagcgagggaagcgataggggtatcttcgcgaacc 656
 DB 18577 CCTCCGCCCTGTCGCCCGGAGCGGTGTCACACATCGACAACTTCAAGTGTGCA 18518
 QY 657 tgcctataccatgacgctgcgcgcaaaattgcaacgctcaagaagcggtgaaccctgt 716
 DB 18517 GAAGCGGATTTGAACCTGCGCGAGAAATGCGCAACTGTTCCGCTGCCGAACACCA 18458
 QY 717 ttctgcgcggaagcctgcgttcgcgcgaagaagtttcgatttcacatcgcgccgttca 776
 DB 18457 TTGCCCCGCGCACGCGGCGGTCAAAAGCGGTTTATGTAAAGACACAGCGGCA 18398
 QY 777 aggggaattgaagcgcaagaagcccatgatgccc 810
 DB 18397 GACGCGGCTGAATGCCACTACTGCGAATAAAC 18364

RESULT 21

AAAF21544
 ID AAF21544 standard; DNA; 349980 BP.

AC AAF21544;

DT 13-MAR-2001 (first entry)

DE Neisseria meningitidis B nucleotide sequence SEQ ID NO.1.

KW Neisseria meningitidis; Neisseria gonorrhoeae; immunogenic; vaccine;
 diagnosis; antigen; detection; infection; gene therapy; antibacterial;

OS Neisseria meningitidis.

PN WO200066791-A1.

PD 09-NOV-2000.

PF 08-MAR-2000; 2000MO-US05928.

PR 30-APR-1999; 99US-0132068.

PR 08-OCT-1999; 99MO-US23573.

PR 28-FEB-2000; 2000GB-0004695.

PA (CHIR) CHIRON CORP.

PA (GENO-) INSR GENOMIC RES.

PI Pizza M, Hickey E, Peterson J, Tettelin H, Venter JC, Masiyana V,
 PI Galeotti C, Mora M, Ratti G, Scarselli M, Scariato V, Rapinoli R,
 PI Frazer CM, Grandi G;

XX WPI: 2000-647603/62.

DR Neisseria meningitidis B full length genome sequence and open reading
 frames are used to detect, treat and prevent Neisserial infections -
 PT frames are used to detect, treat and prevent Neisserial infections -
 PR frames are used to detect, treat and prevent Neisserial infections -
 PS Claim 7; Appendix A: 692pp; English.

CC The present invention describes the full length genome of
 CC Neisseria meningitidis B (NMB). The sequences in AAF21544 and AAF21607
 CC to AAF21613 represent fragments of the NMB genomic sequence, as the
 CC sequence was too long to go in a record on its own it was split into 8
 CC sequences which overlap each other at the beginning and end of each
 CC sequence by 49980 bp (i.e. the last 49980 bp of AAF21544 is repeated at
 CC the beginning of AAF21607, the last 49980 bp of AAF21607 are repeated at
 CC the beginning of AAF21608, and so on). AAF21545 to AAF21588 encode the
 CC Neisseria proteins given in AAB58550 to AAB58593, and AAF21589 to
 CC AAF21606 represent PCR primers which are used in the exemplification of
 CC the present invention. The NMB genome and fragments from it have
 CC antibacterial activity, and can be used in vaccines and gene therapy.
 CC Neisseria nucleic acids, proteins and/or antibodies which binds to the
 CC proteins can be used in compositions for treating or preventing infection
 CC due to Neisserial bacteria or as a diagnostic reagent for detecting the
 CC presence of Neisserial bacteria or of antibodies raised to Neisserial
 CC bacteria. Computers, computer memory, computer storage medium or computer
 CC databases can be used in a search to identify open reading frames (ORFs)
 CC or coding sequences within the NMB genome. The DNA sequences provide
 CC further opportunities to find antigenic or immunogenic proteins which are
 CC more effective in vaccines than the outer membrane proteins currently
 CC used.

XX Sequence 349980 BP: 83241 A; 85091 C; 95206 G; 86442 T; 0 other;

Query Match

Best Local Similarity 44.1%; Score 36.4; DB 21; Length 349980;
 Matches 148; Conservative 0; Mismatches 186; Indels 0; Gaps 0;

QY 477 caaatatcagcagcgaggggttcgcgcgaagaagaaccgagccaccagatca 536
 DB 115461 caaatcttgacactacgcaagcggttaacggtggtctcaactcgcagcaaaacca 115520
 QY 537 aggggtcaacaacatcatcaaaagccctgcgttcgcgcgaagaaccatcgtctccga 596
 DB 115521 aggcagcaagaagatcatcaaaatcaaaagcgtgttcgtgcagcaaaagccgcga 115580
 QY 597 ccacgtccctccctccctcaagaagcgagggaagcgataggggtatcttcgcgaacc 656
 DB 115581 cctgcgcctgttcgcgcgcgagcggtgtcaaacaccatcgacatttcaagtcgtga 115640
 QY 657 tgcctataccatgacgctgcgcgcaaaattgcaacgctcaagaagcggtgaaccctgtt 716
 DB 115641 gaagcgcatcttgaaacctgcgcgaagcgaatcgcggaagtttcgcttcgcaagaa 115700
 QY 717 ttctgcgcggaagcctgcgttcgcgcgaagaagtttcgatttcacatcgcgccgttca 776
 DB 115701 ttgcgcgcgcaagcgagcgagcggttcaaaagccggtttatgttaaaagcacaagggca 115760
 QY 777 aggggaattgaagcgcaagaagcccatgatgccc 810
 DB 115761 gacgcggtcgaatgcactactcgaataaac 115794

RESULT 22

AAAB81490
 ID AAAB81490 standard; DNA; 1437668 BP.

AC AAAB81490;

DT 04-DEC-2000 (first entry)

DE N. meningitidis B full length genome DNA sequence SEQ ID NO:1068.

XX Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;
 KW antigen; vaccine; diagnosis; infection; antibacterial; identification;
 KM Meningococcus B; MenB; ds.
 XX
 OS Neisseria meningitidis.
 PN WO2000022430-A2.
 XX
 XX 20-APR-2000.
 PD
 XX
 XX 08-OCT-1999; 99WO-US23573.
 PF
 XX 09-OCT-1998; 98US-0103794.
 PR 30-APR-1999; 99US-0132068.
 PR
 XX (CHIR) CHIRON CORP.
 PA
 XX Frazer CM, Hickey E, Peterson J, Tettelin H, Venter JC;
 PI Maignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V;
 PI Rappuoli R, Piazza M;
 PI
 DR WPI: 2000-318079/27.
 XX
 XX Isolated nucleotide sequences of Neisseria meningitidis which can be
 PR used in the diagnosis and treatment of N. meningitidis infection and
 PR other Neisserial infections, for example, N.gonorrhoea -
 XX
 XX
 PS Claim 7; Page 866-1272; 1760pp; English.
 XX
 XX The present invention describes methods of obtaining immunogenic
 CC proteins from Neisseria genomic sequences. AAA81453 to AAA82414
 CC represent specifically claimed Neisseria meningitidis genomic DNA
 CC sequences; AAA81260 to AAA81303 and AAB25620 to AAB25663 represent
 CC Neisseria DNA sequences and their corresponding proteins; AAA81254 to
 CC AAA81259 and AAA81304 to AAA81321 represent PCR primers used in the
 CC isolation of Neisseria meningitidis DNA sequences; and AAA81322 to
 CC AAA81452 represent Neisseria meningitidis MenB polynucleotide ORF
 CC sequences, which are all used in the exemplification of the present
 CC invention. The nucleic acid sequences, protein sequences, and antibodies
 CC against them, can be used in the manufacture of a composition. The
 CC composition can be used as a medicament (or in the manufacture of a
 CC medicament) for treating, preventing or diagnosing infection due to
 CC Neisserial bacteria. For example, some of the identified proteins could
 CC be components of vaccines against Meningococcus B; against all serotypes
 CC and/or against all pathogenic Neisseriae. Identification of sequences
 CC from the bacterium will also facilitate production of biological probes,
 CC particularly organism-specific probes. Attempts to make efficacious
 CC Meningococcus B vaccines have failed mainly due to antigen tolerance.
 CC Multivalent vaccines have also been tried but none have successfully
 CC overcome antigenic variability. The provision of further, complete
 CC sequences may provide an opportunity to identify secreted or surface
 CC exposed proteins that may be presumed targets for the immune system and
 CC which are not antigenically variable or at least more conserved than
 CC other more variable regions.
 XX
 XX Sequence 1437668 BP; 344338 A; 353206 C; 385074 G; 355045 T; 5 other;
 SO

QY 657 tgcctatccatgatgcctcgccggcgaacaatttgccagacgtccaaagccgcygaaacctctt 716
 Db 115641 gaagcgcgcatcttgaaacctgcgcgcacgaatacgcgaaagtgttcgcgtctctcgaaacgaa 115700
 QY 747 ttctcgtcgcgaagccctgcctcgtcgcgagacaagtcttcgatttgcaatccgcgccgtcca 776
 Db 115701 ttgcgcgcgcgcacgcgcgcgcgcgtccaaagaccggtttatgttaaaagcacacaggcga 115760
 QY 777 aggggaattgaacgcgcgacaaagcccatgatgcc 810
 Db 115761 gacgcgcgctgaaatgcactactcgcgaaaaaac 115794
 RESULT 23
 AAS77181
 ID AAS77181 standard: cDNA: 3100 BP.
 XX
 AC AAS77181;
 XX
 DT 13-FEB-2002 (first entry)
 XX
 DE DNA encoding novel human diagnostic protein #12985.
 XX
 KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
 KW Food supplement; medical imaging; diagnostic; genetic disorder; ss.
 XX
 OS Homo sapiens.
 XX
 PN MO200175067-A2.
 XX
 PD 11-OCT-2001.
 XX
 PF 30-MAR-2001: 2001MO-US08631.
 XX
 PR 31-MAR-2000: 2000US-0540217.
 PR 23-AUG-2000: 2000US-0649167.
 XX
 PA (HYSE-) HYSEQ INC.
 XX
 PI Drmanac RT, Liu C, Tang YT;
 XX
 DR WPI: 2001-639362/73.
 DR P-PSDB: ABG12994.
 XX
 PT New isolated polynucleotide and encoded polypeptides, useful in
 PT diagnostics, forensics, gene mapping, identification of mutations
 PT responsible for genetic disorders or other traits and to assess
 PT biodiversity -
 XX
 Claim 1, SEQ ID No 12985; 103pp; English.
 XX
 PS The invention relates to isolated polynucleotide (I) and
 CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
 CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
 CC and gene mapping, and in recombinant production of (II). The
 CC polynucleotides are also used in diagnostics as expressed sequence tags
 CC for identifying expressed genes. (I) is useful in gene therapy techniques
 CC to restore normal activity of (II) or to treat disease states involving
 CC (II). (II) is useful for generating antibodies against it, detecting or
 CC quantitating a polypeptide in tissue, as molecular weight markers and as
 CC a food supplement. (II) and its binding partners are useful in medical
 CC imaging of sites expressing (II). (I) and (II) are useful for treating
 CC disorders involving aberrant protein expression or biological activity.
 CC The polypeptide and polynucleotide sequences have applications in
 CC diagnostics, forensics, gene mapping, identification of mutations
 CC responsible for genetic disorders or other traits to assess biodiversity
 CC and to produce other types of data and products dependent on DNA and
 CC amino acid sequences. AAS64197-AAS94564 represent novel human
 CC diagnostic coding sequences of the invention.
 CC Note: The sequence data for this patent did not appear in the printed
 CC specification, but was obtained in electronic format directly from WIPO
 CC at ftp.wipo.int/pub/published_pcr_sequences.

1

Qy	85	cctcgcggttccttcgctcgacacacgggaaccgctcgtgaattgcgtttac	144
Dd	88454	cgatcgccggttcccgaactccaacccgcagcaggatccgcctccagatctgcyttatgc	88513
Oy	145	ctttaagaagaaccgcgcgcgcatalctgccaa	179
Dd	88514	cacgcgcagcagccgcgcagatcgcgaaccgcgccta	88548
<hr/>			
RESULT 30			
ID	AAH01679/c	standard; DNA; 1401 BP.	
XX	AAH01679;		
AC			
XX			
DT	24-JUL-2001	(first entry)	
DE	Bordetella pertussis nucleotide sequence SEQ ID NO:1672.		
XX			
KW	Species specific; genus specific; family specific; probe; detection;		
KW	identification; algal; archaeal; bacterial; fungal; parasitical;		
KW	microorganism; diagnosis; translation elongation factor fu; toxin;		
KW	translation elongation factor G; RecA recombinase; resistance;		
KM	catalytic subunit of proton-translocating ATPase; antimicrobial;		
KX	vaccine; primer; ds.		
XX			
OS	Bordetella pertussis.		
PN	MO200123604-AZ.		
PD	05-APR-2001.		
PF	28-SEP-2000; 2000WO-CA01150.		
PR	28-SEP-1999; 59CA-2283458.		
PR	19-MAY-2000; 2000CA-2307010.		
PA	(INFE-) INFECTIO DIAGNOSTIC (IDI) INC.		
Pt	Bergeron MG, Bolssinot M, Huletsky A, Menard C, Ouellette M;		
Pt	Picard FJ, Roy PH;		
DR	WPI, 2001-245006/25.		
PT	Nucleic acid sequences are used to generate universal probes and		
PT	primers which can be used to identify and detect the presence of algal,		
PT	archaeal, bacterial, fungal and parasitical species in a test sample -		
PS	Disclosure; Page 1269-1270; 1580pp; English.		
XX			
XX	The present invention describes a method for generating a repertoire of		
CC	nucleic acids of tuf, fus, atpd and/or recA genes from which probes		
CC	and/or primers are derived. The method comprises amplifying the nucleic		
CC	acids of determined algal, archaeal, bacterial, fungal and parasitical		
CC	species with a combination of defined primer pairs. The method can be		
CC	used for producing probes and/or primers for detecting one or more		
CC	related microorganisms e.g. algae, archaea, bacteria, fungi and		
CC	parasites; for universal detection and for specific and ubiquitous		
CC	detection and identification of an algal, archaeal, bacterial, fungal		
CC	and parasitical species; genus, family and group. A nucleic acid (I)		
CC	obtained using the method of the invention can be used for the universal		
CC	detection of any bacterium, fungus or parasite in a sample and for the		
CC	detection of at least one antimicrobial agent resistance gene or at		
CC	least one toxin gene. hexa nucleic acids are used for the specific and		
CC	ubiquitous detection and for identification of streptococcus pneumoniae.		
CC	(1) can be used to design a therapeutic agent which is effective against		
CC	microorganisms. Microbial species or genus or family or phylum or group		
CC	which can be detected include Abiotrophia adijensis, Bordetella sp.,		
CC	Corynebacterium sp., Enterobacteriaceae group, Escherichia coli,		
CC	Mycobacterium spp., pseudomonas group, Streptococcus sp.,		
CC	Neisseria gonorrhoeae and Staphylococcus sp.. Using DNA based tests		
CC	provides faster results than substrate specificity tests as results can		
CC	be determined in an hour and improved accuracy is also achieved.		

CC highly sensitive and specific. The specification also describes 69
CC previously unrecognised immunogenic cluster families. H. pylori antigens
CC are used to detect H. pylori-specific antibodies, for diagnosing
CC infection or to confirm eradication of infection, and in vaccines to
CC protect against H. pylori infection and related diseases (gastritis,
CC peptic ulcer, gastric adenocarcinoma/lymphoma).
SQ Sequence 831 BP; 175 A; 220 C; 151 G; 284 T; 1 other;

Query Match 3.9%; Score 35.4; DB 20; Length 831;
Best Local Similarity 45.5%; Pred. No. 1.7; Indels 0; Gaps 0;
Matches 126; Conservative 0; Mismatches 151;

QY 546 acaatcatcaaaagccctgcgttcgagcaaacaccatcctccgaccacgtccc 605
DB 308 AGAAACCGCTGAGATGGAGTTTATAGCAAAAGCGGAGATGTGATGACAAACAA 249
QY 606 ctccctcaagaagcgagggaagcgtatggtgattcttcggcaaacctgctatac 665
DB 248 CACCACGATGATGATGGCAAGGCCATGCGATGATGTTAAAGACAGAGTTGCCAAAT 189
QY 666 catgacgtctgagcaaaattgacacacgtcaaaagcggaaccctgtttctgctg 725
DB 188 CAAACCCCAATTCAGACGACGACGATTTATGCAAGAAATTCAGAAAGATT 129
QY 726 cgaacccctgctgagcaaaagttcgattgcacatccgccccgtccaaaggggaatt 785
DB 128 GCGTAAACCTCTGCGGGGTGCTGTGATTAAGTGGCGCTGCGATGAGTGGGAAT 69
QY 786 gaacgagcaaaagccatgatgcccgcgtgttcaac 822
DB 68 GAAAGAGAAAAAGACCGGGGTGATGACCGCTTGAGC 32

RESULT 33

ABLI4701
ID ABLI4701 standard; cDNA: 3043 BP.

AC ABLI4701;
XX
DT 26-MAR-2002 (first entry)
XX
DE Drosophila melanogaster expressed polynucleotide SEQ ID NO 38585.
XX
KW Drosophila; developmental biology; cell signalling; insecticide;
XX pharmaceutical; gene; ss.
XX
OS Drosophila melanogaster.
XX
PN WO2001/1042-A2.
XX
PD 27-SEP-2001.
XX
PF 23-MAR-2001; 2001WO-US09231.
XX
PR 23-MAR-2000; 2000US-191637P.
XX
PR 11-JUL-2000; 2000US-0614150.
XX
PA (PEKE) PE CORP NY.
XX
PI Venter JC, Adams M, Li PWD, Myers EW.
XX
DR WPI: 2001-656860/75.
XX
DR P-PSDB: ABB70598.
XX
PT New isolated nucleic acid detection reagent for detecting 1000 or more
XX genes from Drosophila and for elucidating cell signalling and cell-cell
XX interactions -
XX
PS Claim 1; SEQ ID NO 38585; 21bp + Sequence Listing; English.
XX
CC The invention relates to an isolated nucleic acid detection reagent

CC capable of detecting 1000 or more genes from Drosophila. The invention is
CC useful in developmental biology and in elucidating cell signalling and
CC cell-cell interactions in higher eukaryotes for the development of
CC insecticides, therapeutics and pharmaceutical drugs. The invention
CC discloses genomic DNA sequences (ABLI6176-ABLI30511), expressed DNA
CC sequences (ABLI01840-ABLI6175) and the encoded proteins
CC (ABB57737-ABB72072).
CC The sequence data for this patent did not form part of the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pt_sequences.
XX
SQ Sequence 3043 BP; 672 A; 993 C; 741 G; 637 T; 0 other;

Query Match 3.9%; Score 34.8; DB 23; Length 3043;
Best Local Similarity 47.3%; Pred. No. 4.8;
Matches 105; Conservative 0; Mismatches 117; Indels 0; Gaps 0;

QY 234 ggaacgagcaaaagcggttggaactgccccggttttcgaaaccggaagacat 293
DB 1848 ggaatcccggaagagcgcttcctcgtcaaccctcgccaatgactatcaccgtgact 1907
QY 294 agaaacaattgtcaaaagcggtacacggttggaacatgtgacagagcgttgacaaca 353
DB 1908 aacgcccatactggaatcacccgtatccgcgaacggtgtgtgacagagcgtacaca 1967
QY 354 cgaaggggtgtatcatcacgcgcgcgaatcggaagctagattggcgagcgtacat 413
DB 1968 aacggaagtgagaagacacccgagatcctctgcgcttcgcgcagatcacaccgcg 2027
QY 414 cagcgaagcgttcctcgtcccgagccatgtacaacc 455
DB 2028 cagcgaagtggtggtcgtcatgaagcgcacatgcctcgttcgcacc 2069

RESULT 34

AAAB1464/C
ID AAAB1464 standard; DNA: 102634 BP.

AC AAAB1464;
XX
DT 04-DEC-2000 (first entry)
XX
DE N. meningitidis partial DNA sequence gmm_12 SEQ ID NO:12.
XX
KW Neisseria meningitidis; Neisseria gonorrhoeae; genome; immunogenic;
XX antigen; vaccine; diagnosis; infection; antibacterial; identification;
XX Meningococcus B; MenB; ds.
XX
OS Neisseria meningitidis.
XX
PN WO200022430-A2.
XX
PD 20-APR-2000.
XX
PF 08-OCT-1999; 99WO-US23573.
XX
PR 09-OCT-1998; 98US-0103794.
XX
PR 30-APR-1999; 99US-0132068.
XX
PA (CHIR) CHIRON CORP.
XX
PI Frazer CM, Hickey E, Peterson J, Mettelin H, Venter JC;
XX Masignani V, Galeotti C, Mora M, Ratti G, Scarselli M, Scarlato V;
XX Rapinoli R, Pizzo M.
XX
DR WPI: 2000-318079/27.
XX
PT Isolated nucleotide sequences of Neisseria meningitidis which can be
XX used in the diagnosis and treatment of N. meningitidis infection and
XX other Neisserial infections, for example, N.gonorrhoea -
XX
PS Claim 7; Page 353-383; 1760pp; English.

XX The present invention describes methods of obtaining immunogenic
CC proteins from *Neisseria* genomic sequences. AAB1453 to AAB82414
CC represent specifically claimed *Neisseria meningitidis* genomic DNA
CC sequences: AAB1260 to AAB1303 and AAB25620 to AAB25663 represent
CC *Neisseria* DNA sequences and their corresponding proteins; AAB1254 to
CC AAB1259 and AAB1304 to AAB1321 represent PCR primers used in the
CC isolation of *Neisseria meningitidis* DNA sequences; and AAB1322 to
CC AAB1452 represent *Neisseria meningitidis* MenB polynucleotide ORF
CC sequences, which are all used in the exemplification of the present
CC invention. The nucleic acid sequences, protein sequences, and antibodies
CC against them, can be used in the manufacture of a composition. The
CC composition can be used as a medicament (or in the manufacture of a
CC medicament) for treating, preventing or diagnosing infection due to
CC *Neisseria* bacteria. For example, some of the identified proteins could
CC be components of vaccines against *Neisseria* B; against all serotypes;
CC and/or against all pathogenic *Neisseria*. Identification of sequences
CC from the bacterium will also facilitate production of biological probes,
CC particularly organism-specific probes. Attempts to make efficacious
CC meningococcus B vaccines have failed mainly due to antigen tolerance.
CC Multivalent vaccines have also been tried but none have successfully
CC overcome antigenic variability. The provision of further, complete
CC sequences may provide an opportunity to identify secreted or surface
CC exposed proteins that may be presumed targets for the immune system and
CC which are not antigenically variable or at least more conserved than
CC other more variable regions.

XX Sequence 102634 BP; 23871 A; 24828 C; 27888 G; 26042 T; 5 other;

Query Match 3.9%; Score 34.8; DB 21; Length 102634;
Best Local Similarity 50.6%; Pred. No. 24;
Matches 84; Conservative 0; Mismatches 82; Indels 0; Gaps 0;

QY 477 caaatcatcagcgagcggttcgcygcaaaagaaacccgcctaccagcataca 536
DB 49247 CGAATACGCGCTTCGACAGCTTCGGGCGCTTCTTGGAATATACCGCGTACCGTAGAA 49188
QY 537 aggggtcaacaatcaatcaagccctgcgttcggcggaagcaacatcgctctgcgga 596
DB 49187 TGGCTGTAGACAGCGGAACACCATACCGCGCGGCTTATGCTTTCCTCCGACCGC 49128
QY 597 ccaggtccctccctcaagaagcggaagcgatagtgtgat 642
DB 49127 GCCCTTGTGTACGCGGAAAAAGCCCGCATGACGAAGCGGTCCAT 49082

RESULT 35
AAF21609/c
ID AAF21609 standard; DNA: 349980 BP.
XX AAF21609;
XX AC
XX DT 13-MAR-2001 (first entry)
XX DE *Neisseria meningitidis* B nucleotide sequence SEQ ID NO.110.
XX KW *Neisseria meningitidis*; *Neisseria gonorrhoeae*; immunogenic; vaccine;
XX ds. diagnosis; antigen; detection; infection; gene therapy; antibacterial;
XX OS *Neisseria meningitidis*.
XX PN WO200066791-A1.
XX PD 09-NOV-2000.
XX PF 08-MAR-2000; 2000WO-US05928.
XX PR 30-APR-1999; 99US-0132068.
XX PR 08-OCT-1999; 99WO-US23573.
XX PR 28-FEB-2000; 2000GB-0004695.
XX XX

PA (CHIR) CHIRON CORP.
XX (GENO-) INST GENOMIC RES.
XX PI Pizsa M, Hickey E, Peterson J, Tettein H, Venter JC, Masignani V;
PI Galeotti C, Mora M, Ratti G, Scarselli M, Scariato V, Rappuoli R;
PI Frazer CM, Grandi G;
XX WPI: 2000-647603/62.

PT *Neisseria meningitidis* B full length genome sequence and open reading
PT frames are used to detect, treat and prevent *Neisseria* infections -
XX
PS
PS Claim 7: Appendix A; 692pp; English.

XX The present invention describes the full length genome of
CC *Neisseria meningitidis* B (NMB). The sequences in AAF21544 and AAF21607
CC to AAF21613 represent fragments of the NMB genomic sequence, as the
CC sequences were too long to go in a record on its own it was split into 8
CC sequences which overlap each other at the beginning and end of each
CC sequence by 49980 bp (i.e. the last 49980 bp of AAF21544 is repeated at
CC the beginning of AAF21608, the last 49980 bp of AAF21607 are repeated at
CC the beginning of AAF21608, and so on). AAF21545 to AAF21588 encode the
CC *Neisseria* proteins given in AAB58550 to AAB58593, and AAF21589 to
CC AAF21606 represent PCR primers which are used in the exemplification of
CC the present invention. The NMB genome and fragments from it have
CC antibacterial activity, and can be used in vaccines and gene therapy.
CC *Neisseria* nucleic acids, proteins and/or antibodies which binds to the
CC proteins can be used in compositions for treating or preventing infection
CC due to *Neisseria* bacteria or as a diagnostic reagent for detecting the
CC presence of *Neisseria* bacteria or of antibodies raised to *Neisseria*
CC bacteria. Computers, computer memory, computer storage medium or computer
CC databases can be used in a search to identify open reading frames (ORFs)
CC or coding sequences within the NMB genome. The DNA sequences provide
CC further opportunities to find antigenic or immunogenic proteins which are
CC more effective in vaccines than the outer membrane proteins currently
CC used.

XX Sequence 349980 BP; 81351 A; 86755 C; 95584 G; 86290 T; 0 other;

Query Match 3.9%; Score 34.8; DB 21; Length 349980;
Best Local Similarity 50.6%; Pred. No. 42;
Matches 84; Conservative 0; Mismatches 82; Indels 0; Gaps 0;

QY 477 caaatcatcagcgagcggttcgcygcaaaagaaacccgcctaccagcataca 536
DB 152957 CGAATACGCGCTTCGACAGCTTCGGGCGCTTCTTGGAATATACCGCGTACCGTAGAA 152898
QY 537 aggggtcaacaatcaatcaagccctgcgttcggcggaagcaacatcgctctgcgga 596
DB 152897 TGGCTGTAGACAGCGGAACACCATACCGCGCGGCTTATGCTTTCCTCCGACCGC 152838
QY 597 ccaggtccctccctcaagaagcggaagcgatagtgtgat 642
DB 152837 GCCCTTGTGTACGCGGAAAAAGCCCGCATGACGAAGCGGTCCAT 152792

RESULT 36
AAB1490/c
ID AAB1490 standard; DNA: 1437668 BP.
XX AAB1490;
XX AC
XX DT 04-DEC-2000 (first entry)
XX DE N. meningitidis B full length genome DNA sequence SEQ ID NO.1068.
XX KW *Neisseria meningitidis*; *Neisseria gonorrhoeae*; genome; immunogenic;
XX ds. antigen; vaccine; diagnosis; infection; antibacterial; identification;
XX OS *Neisseria meningitidis*.
XX XX

